REMARKS

This is intended as a full and complete response to the Final Office Action dated September 9, 2003, having a shortened statutory period for response set to expire on December 9, 2003. Claims 1-54 are pending in the application and are shown above. Claims 1–54 were considered by the Examiner and stand rejected. Applicant cancels claims 1-8, 19-26, and 37-44 without prejudice. Reconsideration of the rejected claims is requested for reasons presented below. Applicants believe that no new matter has been introduced in this response.

Claims 1-54 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Tanaka et al.* U.S. Patent No. 6,039,834 or, alternatively, by *Shrotriya*, U.S. Patent No. 5,843,239. The Examiner asserts that *Tanaka et al.* or *Shrotriya* discloses the aspects of the invention recited in claims 1-54. Applicants respectfully respond to this rejection.

Tanaka et al. discloses a processing chamber having a remote microwave plasma module. The remote plasma module may be used to clean the processing chamber. Temperature is maintained in the processing chamber during the cleaning process by a heating element disposed in a substrate pedestal. (*See,* col. 25, lines 19-40.)

Shrotriya discloses a two-step cleaning process for a processing chamber. The two-step cleaning process may include introducing a cleaning gas into the process chamber and striking a plasma in the processing chamber's interior. Heat may be provided to a chamber by an external lamp heater module providing collimated annular pattern of light through a quartz window onto an annular outer peripheral portion of the susceptor, or alternatively, a resistively heated support platen. Both the external lamp and resistive heater are provided to heat the substrate supported within the chamber. (*See,* col. 5, lines 52-67)

Tanaka et al. or *Shrotriya* do not teach, show, or suggest introducing at least one halogen-containing cleaning gas to the process chamber and employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high power lamp assembly placed at the bottom of the process chamber and a resistive heater assembly, an inductive heater assembly, or a combination thereof embedded in the chamber wall, wherein the rapid heating module increases the temperature of

chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the cleaning gas such that the process chamber is cleaned, as recited in claim 9, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

Tanaka et al. or *Shrotriya* do not teach, show, or suggest introducing at least one halogen-containing cleaning gas to the process chamber and employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high power lamp assembly placed at the bottom of the process chamber and a resistive heater assembly, an inductive heater assembly, or a combination thereof embedded in the chamber wall adjacent liners, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the cleaning gas such that the process chamber is cleaned, as recited in claim 16, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

Tanaka et al. or *Shrotriya* do not teach, show, or suggest introducing at least one halogen-containing gas to the process chamber, applying a plasma to the halogen-containing gas in the process chamber, wherein the plasma activates the halogen-containing gas to generate reactive species, and employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high power lamp assembly placed at the bottom of the process chamber and a resistive heater assembly, an inductive heater assembly, or a combination thereof embedded in the chamber wall, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the reactive species such that the process chamber is cleaned, as recited in claim 27, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

Tanaka et al. or *Shrotriya* do not teach, show, or suggest introducing at least one fluorine-containing gas to the process chamber, applying a plasma to the fluorine-containing gas in the process chamber, wherein the plasma activates the fluorine-containing gas to generate reactive species, and employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high

power lamp assembly placed at the bottom of the process chamber and a resistive heater assembly, an inductive heater assembly, or a combination thereof embedded in the chamber wall adjacent liners, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the reactive species such that the process chamber is cleaned, as recited in claim 34, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

Tanaka et al. or *Shrotriya* do not teach, show, or suggest introducing at least one halogen-containing gas to a remote chamber, wherein the remote chamber is connected to the interior of the process chamber, applying a plasma to the halogen-containing gas in the remote chamber wherein the plasma activates the halogen-containing gas to generate reactive species, introducing the reactive species to the process chamber, and employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high power lamp assembly placed at the bottom of the process chamber and a resistive heater assembly, an inductive heater assembly, or a combination thereof embedded in the chamber wall, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the reactive species such that the process chamber is cleaned, as recited in claim 45, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

Tanaka et al. or *Shrotriya* do not teach, show, or suggest introducing at least one fluorine-containing gas to a remote chamber, wherein the remote chamber is connected to the interior of the process chamber, applying a plasma to the fluorine-containing gas in the remote chamber wherein the plasma activates the fluorine-containing gas to generate reactive species, introducing the reactive species to the process chamber, and employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high power lamp assembly placed at the bottom of the process chamber and a resistive heater assembly, an inductive heater assembly, or a combination thereof embedded in the chamber wall adjacent liners, wherein the rapid heating module increases the temperature of chamber parts and improves the surface

temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the reactive species such that the process chamber is cleaned, as recited in claim 52, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

The prior art made of record is noted. However, it is believed that the secondary references of US Patents 5,893,906, 5,616,208, 5,785,796, 5,849,092, 5,158,644, and 6,236,023, are no more pertinent to the Applicants' disclosure than the primary references cited in the office action. Therefore, it is believed that a detailed discussion of the secondary references is not deemed necessary for a full and complete response to this office action. Accordingly, allowance of the claims is respectfully requested.

In conclusion, the references cited by the Examiner, neither alone nor in combination, teach, show, or suggest the claimed aspects of the invention. Having addressed all issues set out in the office action, applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,

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